## **COMPLETE HERE**

OMB #: 0925-0406 Expiration Date: 08/31/96

## **Agricultural Health Study**

Farmer Applicator Questionnaire [CODED MANUAL]



Public reporting burden for this collection of information is estimated to average 60 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintainting the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to: PHS Reports Clearance Officer, Rm 721-B, Humphrey Building, 200 Independence Ave., SW, Washington, D.C. 20201, ATTN: PRA; and to Office of Management and Budget, Paperwork Reduction Project (0925-0406), Washington, D.C. 20503.

Please return this questionnaire in the next two weeks in the envelope provided. Problems or questions? Call 1-800-4AG-STUDY. Dear Applicator:

We are again asking for your help in carrying out an important scientific study that the University of Iowa Medical Center and Survey Research Associates (Durham, NC) are conducting in cooperation with the National Institutes of Health (NIH) and the Office of Research and Development of the US Environmental Protection Agency (USEPA). The study is being conducted in Iowa and North Carolina and investigates environmental factors, occupation and diet and their effects on an individual's health.

Thank you for filling out the Enrollment Questionnaire. Now we are asking you and your spouse to complete the main study questionnaires. Questions about your lifestyle, pesticide use, work practices, occupational history, medical history, cooking practices, and health will be asked in more detail than on the form you filled out earlier. Your spouse will be asked questions about family health. You are free to skip any question at any point in the form.

The study results will give you information you may find helpful in making decisions for your health and the health of your family. This information will be provided through the cooperative extension service, state and county health departments, articles in trade magazines, and public service announcements on radio and TV. You can request study reports by calling the Agricultural Health Study's toll-free number 1-800-4AG-STUDY.

Your participation is very important to the success of the study. Information you give us will be treated with care and will not be disclosed to anyone but the researchers conducting the study or as required by law. Confidential information like your name and address will be stored in locked files accessible only to study staff. Your name will not be used in any reports or released in any way. The study results will be reported in statistical summary form only.

You may be contacted in the future to take part in related research studies. Your decision to be a part of future studies will also be voluntary.

We need to hear from you within the next two weeks. Please take the time to fill out this questionnaire. The booklet may look long but there may be many pages you can skip. Most people find it takes about an hour to complete. I think you'll find it interesting. Please return the completed form to the Agricultural Health Study Project in the enclosed pre-addressed, postage-paid envelope. Be sure to also include the Spouse and Female and Family Health questionnaires. If you have any questions about the survey, please contact Pat Miller at the Agricultural Health Study at 1-800-4AG-STUDY.

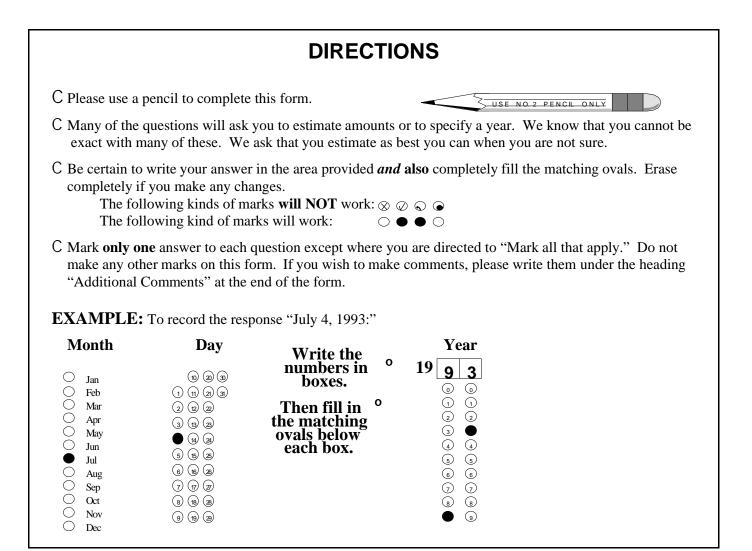
We appreciate your cooperation in this important research project.

Sincerely,

michael C.R. alavanja

Michael C.R. Alavanja, D. H. Project Officer National Institutes of Health

**Privacy Act Notification:** 42 U.S.C. 285a of the Public Health Service Act authorizes collection of this information. It will be used to evaluate the role of agricultural exposures and other factors in the development of cancer, neurological disease, birth defects and other chronic diseases. All information is voluntary and a decision not to provide all or any part of the requested information will not affect your certification or licensing. The Government may disclose this information to a Congressional Office upon your request, to the Department of Justice in the event of litigation; or to the Government contractors and collaborating researchers who are analyzing the study data.



### **BEGIN HERE**

[a\_quexdate] SAS date

### I. General Information

### 1. What is today's date?

[qxmonth]	[qxday]	<mark>[qxyear]</mark>
Month	Day	Year
<ul> <li>Jan</li> <li>Feb</li> <li>Mar</li> <li>Apr</li> <li>May</li> <li>Jun</li> <li>Jul</li> <li>Aug</li> <li>Sep</li> <li>Oct</li> <li>Nov</li> <li>Dec</li> </ul>	(b) (a) (a) (1) (1) (2) (2) (2) (2) (2) (2) (3) (2) (2) (2) (4) (2) (2) (2) (4) (2) (2) (2) (2) (3) (2) (2) (2) (2) (2) (2) (2) (2) (2) (2	<ul> <li>1993</li> <li>1994</li> <li>1995</li> <li>1996</li> </ul>

#### Over your lifetime, how many years have you lived or worked on a farm? 2.

- O Less than 5 years
- O 5-10 years
- $\bigcirc$  11–20 years
- $\bigcirc$  21–30 years
- O Over 30 years

#### 3. During the last growing season, how many days did you do the following activities?

#### a. Till the soil (plow, disk, cultivate) [algsact1]

### b. Drive combines or other crop harvesters [algsact2]

### c. Plant

### [algsact3]

- O Never O 1-5 days
- O 6–25 days
- O 26–50 days
- O More than 50 days

### f. Hand pick crops [algsact6]

- O Never
- $\bigcirc$  1–5 days
- O 6–25 days
- O 26–50 days
- O More than 50 days

4. How often do you personally do the following activities?	<b>A. In the Summer</b> (that is, the growing season)	<b>B. In the Winter</b> (that is, the non-growing season)	
	[asmact1]	[awnact1]	
a. Milk cows	O Never or less than once a month	O Never or less than once a month	
	$\bigcirc$ Monthly (1–3 times a month)	$\bigcirc$ Monthly (1–3 times a month)	
	$\bigcirc$ Weekly (1–5 times a week)	$\bigcirc$ Weekly (1–5 times a week)	
	O Daily (6–7 times a week)	O Daily (6–7 times a week)	
	[asmact2]	[awnact2]	
b. Drive trucks	$\bigcirc$ Never or less than once a month	O Never or less than once a month	
	$\bigcirc$ Monthly (1–3 times a month)	$\bigcirc$ Monthly (1–3 times a month)	
	O Weekly (1–5 times a week)	$\bigcirc$ Weekly (1–5 times a week)	
	$\bigcirc$ Daily (6–7 times a week)	O Daily (6–7 times a week)	
	[asmact3]	[awnact3]	
c. Drive diesel tractors	O Never or less than once a month	$\bigcirc$ Never or less than once a month	
	$\bigcirc$ Monthly (1–3 times a month)	$\bigcirc$ Monthly (1–3 times a month)	
	$\bigcirc$ Weekly (1–5 times a week)	$\bigcirc$ Weekly (1–5 times a week)	
	O Daily (6–7 times a week)	O Daily (6–7 times a week)	
	[asmact4]	[awnact4]	
d. Drive gasoline tractors	$\bigcirc$ Never or less than once a month	$\bigcirc$ Never or less than once a month	
C C	$\bigcirc$ Monthly (1–3 times a month)	$\bigcirc$ Monthly (1–3 times a month)	
	$\bigcirc$ Weekly (1–5 times a week)	$\bigcirc$ Weekly (1–5 times a week)	
	$\bigcirc$ Daily (6–7 times a week)	$\bigcirc$ Daily (6–7 times a week)	
e. Weld	[asmact5]	[awnact5]	
	$\bigcirc$ Never or less than once a month	O Never or less than once a month	
	$\bigcirc$ Monthly (1–3 times a month)	$\bigcirc$ Monthly (1–3 times a month)	
	$\bigcirc$ Weekly (1–5 times a week)	$\bigcirc$ Weekly (1–5 times a week)	
	$\bigcirc$ Daily (6–7 times a week)	$\bigcirc$ Daily (6–7 times a week)	

- O 11–30 days
- O 31–100 days
- O More than 100 days
- e. Apply chemical fertilizer [algsact5]
  - O 1–5 days

- O More than 100 days
- O Never

O Never

O 1-10 days

O 11–30 days

O 31–100 days

- O 1–5 days
- O 6–25 days
- O 26–50 days

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O More than 50 days

- O Never
  - O 1-10 days

  - O More than 50 days

- O Never

  - O 6–25 days
  - O 26–50 days

- d. Apply natural fertilizer (manure) [algsact4]

4. How often do you personally do the following activities?	<b>A. In the Summer</b> (that is, the growing season)	<b>B. In the Winter</b> (that is, the non-growing season)
f. Repair engines	[asmact6] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)	[awnact6] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)
g. Grind metal	[asmact7] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)	[awnact7] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)
h. Grind animal feed	[asmact8] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)	[awnact8] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)
i. Use gasoline for cleaning hands or equipment	[asmact9] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)	[awnact9] <ul> <li>Never or less than once a month</li> <li>Monthly (1–3 times a month)</li> <li>Weekly (1–5 times a week)</li> <li>Daily (6–7 times a week)</li> </ul>
j. Use other solvents (like paint stripper, turpentine, benzene) for cleaning	[asmact10] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)	[awnact10] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)
k. Paint	[asmact11] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)	[awnact11] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)
<ol> <li>Perform procedures where you may come in contact with animal blood (castration, dehorning, birthing, etc.)</li> </ol>	[asmact12] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)	[awnact12] O Never or less than once a month O Monthly (1–3 times a month) O Weekly (1–5 times a week) O Daily (6–7 times a week)

Did a veterinarian ever tell you that any of the livestock on this farm, or any farm you may have worked on, had leukemia or lymphoma caused by a virus? [aleukdry O No [GO TO QUESTION 8] O Yes 5. [aleukdry]

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	А.		B. IF YES, How many years ago did this first happen?			happen?	
LIVESTOCK	No	Yes	////	Last 5 years	6–10 years	11-20 years	21 or more years
a. Dairy cattle [aleukst1]	0	0	[aleukyr1]	0	0	0	0
b. Beef cattle [aleukst2]	0	0	[aleukyr2]	0	0	0	0
c. Chickens [aleukst3]	0	0	[aleukyr3]	0	0	0	0

#### 6. How many different times has viral leukemia or lymphoma been diagnosed on the farm?

a. Dairy or Beef Cattle [altimcat]

- b. Chickens [altimchc]
- O Never
- - O Once
  - O Twice
- O Three times O Four times

O Three timesO Four times

O Never

O Once

O Twice

- O Five or more times
- O Don't know

O Don't know

O Five or more times

## 7. In total, how many animals have been diagnosed with viral leukemia or lymphoma (nclude cattle and chickens)? O None [atotinf]

- O 1–19
- O 20-49
- 0 50-99
- O 100–199
- $\bigcirc$  200 or more
- O Don't know

## 8. How many years have you been told that all or part of the crops grown or stored on your farm had aspergillus (aflatoxin B)? [aasperg]

- O Never
- O 1 year
- O 2 years
- O 3 or more years
- O Don't know

9. How many years have you been unable to harvest or sdl all or part of the crops grown or stored on your farm because of molds other than aspergillus? [amolds]

- O Never
- O 1 year
- O 2 years
- O 3 or more years
- O Don't know

### **II. Pesticide Use Information**

**10.** What application methods do you generally use when you apply herbicides? (*Mark all that apply.*)

O Don't usually apply herbicides [ahrbmth1] O Airblast [ahrbmth2] O Boom on tractor, truck, or trailer [ahrbmth3] O Hand spray gun [ahrbmth4] O Backpack sprayer [ahrbmth5] O Aerial (aircraft application) [ahrbmth6] O In furrow or banded [ahrbmth7] O Mist blower/fogger [ahrbmth8] O Other [ahrbmth9]

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- **11. What application methods do you generally use when you apply crop insecticides?** (*Mark all that apply*.)
  - O Don't usually apply crop insecticides [ainsmth1]
  - O Airblast [ainsmth2] O Boom on tractor, truck, or trailer [ainsmth3] O Hand spray gun [ainsmth4] O Backpack sprayer [ainsmth5] O Aerial (aircraft application) [ainsmth6] O In furrow or banded [ainsmth7] O Mist blower/fogger [ainsmth8] O Other [ainsmth9]



### 12. What application methods do you generally use when you apply poultry/livestock/animal confinement area insecticides? (Mark all that apply.)

Ο	Don't us	ually apply poultry/livestock	/animal	
	confi	nement area insecticides	[acaimt1]	
Ο	Ear tag		[acaimt2]	
Ο	Hang pe	st strips in barn	[acaimt3]	
Ο	Dust ani	mals	[acaimt4]	
Ο	Fog/mist	animals	[acaimt5]	
Ο	Dip anin	als in pesticide solution	[acaimt6]	
Ο	Spray an	imals	[acaimt7]	
Ο	Spray buildings [acaimt8]			
Ο	Rope wick [acaimt9]			
Ο	Pour on	animals	[acaimt10]	
Ο	Other		[acaimt11]	

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### **13. What application methods do you generally use when you apply fungicides?** (*Mark all that apply.*)

Ο	Don't usually apply fungicides	[afungmt1]
Ο	Airblast	[afungmt2]
Ο	Boom on tractor, truck, or trailer	[afungmt3]
Ο	Hand spray gun	[afungmt4]
Ο	Backpack sprayer	[afungmt5]
Ο	Aerial (aircraft application)	[afungmt6]
Ο	Pre-applied to seed	[afungmt7]
Ο	Mist blower/fogger	[afungmt8]
Ο	Other	[afungmt9]

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## 14. What application methods do you generally use when you apply fumigants? (Mark all that apply.)

O Don't us O Gas cani	[afumgmt1] [afumgmt2]	
O Row fun	[afumgmt3]	
O Other		[afumgmt4]

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### **15. When you personally mix herbicides, what additives do you generally use?** (*Mark all that apply.*)

O Don't mix herbicides	[ahrbadd1]
O Don't usually use additives	[ahrbadd2]
O Solvents (like diesel fuel)	[ahrbadd3]
O Fertilizer	[ahrbadd4]
O Other pesticides	[ahrbadd5]
O Surfactants, crop oil concentrates	[ahrbadd6]

## 16. When you personally mix crop insecticides, what additives do you generally use? (Mark all that

apply.)

- Don't mix crop insecticides
  Don't usually use additives
  Solvents (like diesel fuel)
  Fertilizer
  Other pesticides
  Surfactants, crop oil concentrates
- **17.** When you personally mix animal/livestock/animal confinement area insecticides, what additives do you generally use? (*Mark all that apply.*)
  - O Don't mix animal/livestock/animal confinement area insecticides [acaiadd1]
  - O Don't usually use additives [acaiadd2]
     O Solvents (like diesel fuel) [acaiadd3]
     O Other pesticides [acaiadd4]

# **18. When you personally mix fungicides, what additives do you generally use?** (*Mark all that*

app	oly.)	
Õ	Don't mix fungicides	[afungad1]
Ο	Don't usually use additives	[afungad2]
Ο	Solvents (like diesel fuel)	[afungad3]
Ο	Fertilizer	[afungad4]
Ο	Other pesticides	[afungad5]
Ο	Surfactants, crop oil concentrates	[afungad6]

For the following pesticides, first answer the question in Column A. If you answered "Yes" then answer the questions in Columns B, C and D for that pesticide. If you answered "No" then go on to the next pesticide. Be sure to answer Column A ("Yes" or "No") **for each pesticide** listed. This list includes some pesticides that are no longer on the market. Please answer about your use of these pesticides in past operations.

Name of Pesticide	A. Have you ever personally mixed or applied this pesticide?	B. How many years did you personally mix or apply this pesticide?	C. In an average year when you personally used this pesticide, how many days did you use it?	D. When did you <i>first</i> personally use this pesticide?
<b>19. Herbicides</b> (pestic	ides used to kill weeds	<u>///////</u> )		
a. Classic or other chlorimuron ethyl products	[a_herbicide_cd4] O No O Yes <sup>O</sup> O	[a_herbicide_yr4] O 1 year or less O 2–5 years O 6–10 years O 11–20 years O More than 20 years	[a_herbicide_day4] ○ Less than 5 days ○ 5–9 days ○ 10–19 days ○ 20–39 days ○ 40–59 days ○ 60–150 days ○ More than 150 days	[a_herbicide_fu4] ○ Before 1960 ○ In the 1960s ○ In the 1970s ○ In the 1980s ○ In the 1990s ○ ○ ○ Mark here if you used this pesticide last year [a_herbicide_ls4]
b. <b>Lexone, Sencor</b> or other <i>metribuzin</i> products	[a_herbicide_cd8] ○ No ○ Yes <sup>0</sup> ○	[a_herbicide_yr8] () 1 year or less () 2–5 years () 6–10 years () 11–20 years () More than 20 years	[a_herbicide_day8] O Less than 5 days O 5–9 days O 10–19 days O 20–39 days O 40–59 days O 60–150 days O More than 150 days	[a_herbicide_fu8] ○ Before 1960 ○ In the 1960s ○ In the 1970s ○ In the 1980s ○ In the 1990s ○ ○ Mark here if you used this pesticide last year [a_herbicide_ls8]
c. Paraquat	[a_herbicide_cd9] O No O Yes <sup>O</sup> O	[a_herbicide_yr9] O 1 year or less O 2–5 years O 6–10 years O 11–20 years O More than 20 years	[a_herbicide_day9] ○ Less than 5 days ○ 5–9 days ○ 10–19 days ○ 20–39 days ○ 40–59 days ○ 60–150 days ○ More than 150 days	[a_herbicide_fu9] ○ Before 1960 ○ In the 1960s ○ In the 1970s ○ In the 1980s ○ In the 1990s ○ ○ Mark here if you used this pesticide last year [a_herbicide_ls9]
d. <b>Petroleum oil</b> / petroleum distillate	[a_herbicide_cd10] O No O Yes <sup>O</sup> O	[a_herbicide_yr10] () 1 year or less () 2–5 years () 6–10 years () 11–20 years () More than 20 years	[a_herbicide_day10] ○ Less than 5 days ○ 5–9 days ○ 10–19 days ○ 20–39 days ○ 40–59 days ○ 60–150 days ○ More than 150 days	[a_herbicide_fu10] ○ Before 1960 ○ In the 1960s ○ In the 1970s ○ In the 1980s ○ In the 1990s ○ ○ Mark here if you used this pesticide last year [a_herbicide_ls10]

Name of Pesticide	A. Have you ever personally mixed or applied this pesticide?	B. How many years did you personally mix or apply this pesticide?	C. In an average year when you personally used this pesticide, how many days did you use it?	D. When did you <i>first</i> personally use this pesticide?
e. <b>Prowl</b> or other <i>pendimethalin</i> products	[a_herbicide_cd11] ○ No ○ Yes <sup>0</sup> ○	[a_herbicide_yr11] 1 year or less 2–5 years 6–10 years 11–20 years More than 20 years	[a_herbicide_day11] ○ Less than 5 days ○ 5–9 days ○ 10–19 days ○ 20–39 days ○ 40–59 days ○ 60–150 days ○ More than 150 days	[a_herbicide_fu11] ○ Before 1960 ○ In the 1960s ○ In the 1970s ○ In the 1980s ○ In the 1990s ○ ○ ○ Mark here if you used this pesticide last year [a_herbicide_ls11]
f. <b>Sutan, Genate</b> or other <i>butylate</i> products	[a_herbicide_cd15] ○ No ○ Yes <sup>0</sup> ○	[a_herbicide_yr15] ○ 1 year or less ○ 2–5 years ○ 6–10 years ○ 11–20 years ○ More than 20 years	[a_herbicide_day15] ○ Less than 5 days ○ 5–9 days ○ 10–19 days ○ 20–39 days ○ 40–59 days ○ 60–150 days ○ More than 150 days	[a_herbicide_fu15] ○ Before 1960 ○ In the 1960s ○ In the 1970s ○ In the 1980s ○ In the 1990s ○ ○ ○ Mark here if you used this pesticide last year [a_herbicide_ls15]
g. <b>Silvex</b> or other 2,4,5 T P products	[a_herbicide_cd14] O No O Yes <sup>O</sup> O	[a_herbicide_yr14] 1 year or less 2–5 years 6–10 years 11–20 years More than 20 years	[a_herbicide_day14] O Less than 5 days O 5-9 days O 10-19 days O 20-39 days O 40-59 days O 60-150 days O More than 150 days	[a_herbicide_fu14] O Before 1960 In the 1960s In the 1970s In the 1980s In the 1990s
h. <b>2,4,5</b> T	[a_herbicide_cd18] ○ No ○ Yes <sup>0</sup> ○	[a_herbicide_yr18] 1 year or less 2–5 years 6–10 years 11–20 years More than 20 years	[a_herbicide_day18] <ul> <li>Less than 5 days</li> <li>5-9 days</li> <li>10-19 days</li> <li>20-39 days</li> <li>40-59 days</li> <li>60-150 days</li> <li>More than 150 days</li> </ul>	[a_herbicide_fu18] O Before 1960 O In the 1960s O In the 1970s O In the 1980s O In the 1990s

Name of Pesticide	A. Have you ever personally mixed or applied this pesticide?	B. How many years did you personally mix or apply this pesticide?	C. In an average year when you personally used this pesticide, how many days did you use it?	D. When did you <i>first</i> personally use this pesticide?
<u>/////////////////////////////////////</u>	<u>//////</u>	<u>//////</u>		-
20. Crop/Livestock/Ani				-
a. <b>Forlin, Gamaphex</b> or other <i>lindane</i> products	[a_insecticide_cd6] ○ No ○ Yes ○	[a_insecticide_yr6] 1 year or less 2–5 years 6–10 years 11–20 years More than 20 years	[a_insecticide_day6] O Less than 5 days O 5–9 days O 10–19 days O 20–39 days O 40–59 days O 60–150 days O More than 150 days	[a_insecticide_fu6] ○ Before 1960 ○ In the 1960s ○ In the 1970s ○ In the 1980s ○ In the 1990s ○ ○ ○ Mark here if you used this pesticide last year [a_insecticide_ls6]
b. Malathion	[a_insecticide_cd9] ○ No ○ Yes <sup>0</sup> ○	[a_insecticide_yr9] 1 year or less 2–5 years 6–10 years 11–20 years More than 20 years	[a_insecticide_day9] ○ Less than 5 days ○ 5–9 days ○ 10–19 days ○ 20–39 days ○ 40–59 days ○ 60–150 days ○ More than 150 days	[a_insecticide_fu9] ○ Before 1960 ○ In the 1960s ○ In the 1970s ○ In the 1980s ○ In the 1990s ○ ○ Mark here if you used this pesticide last year [a_insecticide_ls9]
c. <b>Parathion</b> (ethyl or methyl)	[a_insecticide_cd10] ○ No ○ Yes ○	[a_insecticide_yr10] 1 year or less 2–5 years 6–10 years 11–20 years More than 20 years	[a_insecticide_day10] C Less than 5 days 5-9 days 10-19 days 20-39 days 40-59 days 60-150 days More than 150 days	[a_insecticide_fu10] ○ Before 1960 ○ In the 1960s ○ In the 1970s ○ In the 1980s ○ In the 1990s ○ ○ ○ Mark here if you used this pesticide last year [a_insecticide_ls10]
d. <b>Sevin, Carbamine</b> or other <i>carbaryl</i> products	[a_insecticide_cd11] O No O Yes <sup>O</sup> O	[a_insecticide_yr11] 1 year or less 2–5 years 6–10 years 11–20 years More than 20 years	[a_insecticide_day11] O Less than 5 days O 5–9 days O 10–19 days O 20–39 days O 40–59 days O 60–150 days O More than 150 days	[a_insecticide_fu11] ○ Before 1960 ○ In the 1960s ○ In the 1970s ○ In the 1980s ○ In the 1990s ○ ○ Mark here if you used this pesticide last year [a_insecticide_ls11]
e. <b>Spectricide, Dianon</b> or other <i>diazinon</i> products	[a_insecticide_cd12] O No O Yes <sup>O</sup> O	[a_insecticide_yr12] 1 year or less 2–5 years 6–10 years 11–20 years More than 20 years	[a_insecticide_day12] O Less than 5 days O 5–9 days O 10–19 days O 20–39 days O 40–59 days O 60–150 days O More than 150 days	<ul> <li>[a_insecticide_fu12]</li> <li>Before 1960</li> <li>In the 1960s</li> <li>In the 1970s</li> <li>In the 1980s</li> <li>In the 1990s</li> <li>Mark here if you used this pesticide last year</li> <li>[a_insecticide_ls12]</li> </ul>

	А.	B.	C.	D.
	Have you ever	How many years did	In an average year when	When did you <i>first</i>
Name of Pesticide	personally mixed	you personally mix or	you personally used this	personally use this
	or applied this pesticide?	apply this pesticide?	pesticide, how many days did you use it?	pesticide?
111111		///////	aujs ala you ase ivi	
f. Temik or other <i>aldicarb</i>	[a_insecticide_cd13]	[a_insecticide_yr13]	[a_insecticide_day13]	[a_insecticide_fu13]
products	$\bigcirc$ No $\bigcirc$ Yes <sup>O</sup>	O 1 year or less	O Less than 5 days	O Before 1960
	0	$\bigcirc$ 2–5 years $\bigcirc$ 6–10 years	○ 5–9 days ○ 10–19 days	<ul> <li>○ In the 1960s</li> <li>○ In the 1970s</li> </ul>
		$\bigcirc$ 6–10 years $\bigcirc$ 11–20 years	$\bigcirc$ 10–19 days $\bigcirc$ 20–39 days	$\bigcirc$ In the 1970s $\bigcirc$ In the 1980s
		O More than 20 years	$\bigcirc$ 40–59 days	O In the 1990s
			○ 60–150 days	0
			O More than 150 days	O Mark here if you used
				this pesticide last year
				[a_insecticide_ls13]
g. Thimet, Rampart or	[a_insecticide_cd14]	[a_insecticide_yr14]	[a_insecticide_day14]	[a_insecticide_fu14]
other <i>phorate</i> products	$\bigcirc$ No $\bigcirc$ Yes <sup>O</sup>	$\bigcirc$ 1 year or less $\bigcirc$ 2–5 years	$\bigcirc$ Less than 5 days $\bigcirc$ 5–9 days	<ul><li>○ Before 1960</li><li>○ In the 1960s</li></ul>
	0	$\bigcirc$ 2–3 years $\bigcirc$ 6–10 years	$\bigcirc$ 10–19 days	$\bigcirc$ In the 1900s
		O 11–20 years	○ 20–39 days	O In the 1980s
		O More than 20 years	$\bigcirc$ 40–59 days	$\bigcirc$ In the 1990s
			<ul><li>○ 60–150 days</li><li>○ More than 150 days</li></ul>	-
			O More than 150 tays	O Mark here if you used
				this pesticide last year [a_insecticide_ls14]
h. <b>Aldrin</b>	[a_insecticide_cd15]	[a_insecticide_yr15]	[a_insecticide_day15]	[a_insecticide_fu15]
	$\bigcirc$ No $\bigcirc$ Yes <sup>O</sup>	O 1 year or less	O Less than 5 days	O Before 1960
	0 10 0 103	$\bigcirc$ 2–5 years	$\bigcirc$ 5–9 days	$\bigcirc$ In the 1960s
		$\bigcirc$ 6–10 years $\bigcirc$ 11–20 years	○ 10–19 days ○ 20–39 days	<ul> <li>○ In the 1970s</li> <li>○ In the 1980s</li> </ul>
		O More than 20 years	$\bigcirc$ 40–59 days	$\bigcirc$ In the 1990s
			○ 60–150 days	
			O More than 150 days	
i. Chlordane	[a_insecticide_cd16]	[a_insecticide_yr16] O 1 year or less	[a_insecticide_day16] O Less than 5 days	[a_insecticide_fu16] O Before 1960
	$\bigcirc$ No $\bigcirc$ Yes <sup>O</sup>	$\bigcirc$ 2–5 years	$\bigcirc$ 5–9 days	$\bigcirc$ In the 1960s
	0	$\bigcirc$ 6–10 years	○ 10–19 days	$\bigcirc$ In the 1970s
		$\bigcirc$ 11–20 years	$\bigcirc$ 20–39 days	$\bigcirc$ In the 1980s
		O More than 20 years	○ 40–59 days ○ 60–150 days	$\bigcirc$ In the 1990s
			O More than 150 days	
j. <b>Dieldrin</b>	[a_insecticide_cd17]	[a_insecticide_yr17]	[a_insecticide_day17]	[a_insecticide_fu17]
	$\bigcirc$ No $\bigcirc$ Yes <sup>O</sup>	$\bigcirc$ 1 year or less	$\bigcirc$ Less than 5 days	O Before 1960
	0	$\bigcirc$ 2–5 years $\bigcirc$ 6–10 years	○ 5–9 days ○ 10–19 days	<ul> <li>○ In the 1960s</li> <li>○ In the 1970s</li> </ul>
		$\bigcirc$ 11–20 years	$\bigcirc$ 10–19 days $\bigcirc$ 20–39 days	$\bigcirc$ In the 1970s $\bigcirc$ In the 1980s
		O More than 20 years	○ 40–59 days	O In the 1990s
			○ 60–150 days ○ More than 150 days	
k. DDT	[a_insecticide_cd18]	[a_insecticide_yr18]	[a_insecticide_day18]	[a_insecticide_fu18]
	$\bigcirc$ No $\bigcirc$ Yes <sup>O</sup>	O 1 year or less	O Less than 5 days	O Before 1960
	0 110 0 103	$\bigcirc$ 2–5 years	$\bigcirc$ 5–9 days	$\bigcirc$ In the 1960s
		$\bigcirc$ 6–10 years $\bigcirc$ 11–20 years	○ 10–19 days ○ 20–39 days	<ul> <li>○ In the 1970s</li> <li>○ In the 1980s</li> </ul>
		$\bigcirc$ 11–20 years $\bigcirc$ More than 20 years	$\bigcirc$ 20–39 days $\bigcirc$ 40–59 days	$\bigcirc$ In the 1980s $\bigcirc$ In the 1990s
			○ 60–150 days	
			O More than 150 days	

Name of Pesticide	A. Have you ever personally mixed or applied this pesticide?	B. How many years did you personally mix or apply this pesticide?	C. In an average year when you personally used this pesticide, how many days did you use it?	D. When did you <i>first</i> personally use this pesticide?
1. Heptachlor	[a_insecticide_cd19] ○ No ○ Yes <sup>0</sup> ○	[a_insecticide_yr19] 1 year or less 2–5 years 6–10 years 11–20 years More than 20 years	[a_insecticide_day19] ○ Less than 5 days ○ 5–9 days ○ 10–19 days ○ 20–39 days ○ 40–59 days ○ 60–150 days ○ More than 150 days	[a_insecticide_fu19] O Before 1960 O In the 1960s O In the 1970s O In the 1980s O In the 1990s
m. <b>Toxaphene</b>	[a_insecticide_cd20] ○ No ○ Yes <sup>0</sup> ○	[a_insecticide_yr20] 1 year or less 2–5 years 6–10 years 11–20 years More than 20 years	[a_insecticide_day20] <ul> <li>Less than 5 days</li> <li>5-9 days</li> <li>10-19 days</li> <li>20-39 days</li> <li>40-59 days</li> <li>60-150 days</li> <li>More than 150 days</li> </ul>	[a_insecticide_fu20] ○ Before 1960 ○ In the 1960s ○ In the 1970s ○ In the 1980s ○ In the 1990s
21. Fungicides (chemica	uls for controlling dise	ease on crops and seed;	may be pre-applied to see	ed)
a. <b>Benlate, Tersan</b> or other <i>benomyl</i> products	[a_fungicide_cd1] ○ No ○ Yes ○	<ul> <li>[a_fungicide_yr1]</li> <li>Already applied to seed</li> <li>1 year or less</li> <li>2-5 years</li> <li>6-10 years</li> <li>11-20 years</li> <li>More than 20 years</li> </ul>	[a_fungicide_day1] O Pre-applied to seed None 1 day 2-5 days 5-9 days 10-19 days 20-39 days 40-59 days 60-150 days More than 150 days	<ul> <li>[a_fungicide_fu1]</li> <li>Before 1960</li> <li>In the 1960s</li> <li>In the 1970s</li> <li>In the 1980s</li> <li>In the 1990s</li> <li>Mark here if you used this pesticide last year [a_fungicide_ls1]</li> </ul>
b. Manex, Manzate, Dithane Z-78 or other maneb or mancozeb products	[a_fungicide_cd4] ○ No ○ Yes <sup>0</sup> ○	[a_fungicide_yr4] ○ Already applied to seed ○ 1 year or less ○ 2–5 years ○ 6–10 years ○ 11–20 years ○ More than 20 years	<b>[a_fungicide_day4]</b> O Pre-applied to seed O None O 1 day O 2-5 days O 5-9 days O 10-19 days O 20-39 days O 40-59 days O 60-150 days O More than 150 days	<ul> <li>[a_fungicide_fu4]</li> <li>Before 1960</li> <li>In the 1960s</li> <li>In the 1970s</li> <li>In the 1980s</li> <li>In the 1990s</li> <li>Mark here if you used this pesticide last year [a_fungicide_ls4]</li> </ul>
c. <b>Ridomil, Subdue</b> or other <i>metalaxyl</i> products	[a_fungicide_cd5] ○ No ○ Yes <sup>0</sup> ○	[a_fungicide_yr5] ○ Already applied to seed ○ 1 year or less ○ 2–5 years ○ 6–10 years ○ 11–20 years ○ More than 20 years	[a_fungicide_day5] O Pre-applied to seed O None 1 day 2-5 days 5-9 days 10-19 days 20-39 days 40-59 days 0 60-150 days O More than 150 days	<ul> <li>[a_fungicide_fu5]</li> <li>Before 1960</li> <li>In the 1960s</li> <li>In the 1970s</li> <li>In the 1980s</li> <li>In the 1990s</li> <li>Mark here if you used this pesticide last year [a_fungicide_ls5]</li> </ul>

Name of Pesticide	A. Have you ever personally mixed or applied this pesticide?	B. How many years did you personally mix or apply this pesticide?	C. In an average year when you personally used this pesticide, how many days did you use it?	D. When did you <i>first</i> personally use this pesticide?
d. <b>Zirex, Corozate</b> or other <i>ziram</i> products	[a_fungicide_cd6] ○ No ○ Yes <sup>0</sup> ○	[a_fungicide_yr6] O Already applied to seed O 1 year or less O 2–5 years O 6–10 years O 11–20 years O More than 20 years	[a_fungicide_day6]O Pre-applied to seedO None1 day2-5 days5-9 days10-19 days20-39 days40-59 days60-150 daysMore than 150 days	<ul> <li>[a_fungicide_fu6]</li> <li>Before 1960</li> <li>In the 1960s</li> <li>In the 1970s</li> <li>In the 1980s</li> <li>In the 1990s</li> <li>Mark here if you used this pesticide last year [a_fungicide_ls6]</li> </ul>
22. Fumigants (gases of	r liquids that turn to g	as when released; used	l in enclosed areas or to t	reat soil)
a. <b>Phostoxin, Gastoxin</b> or other <i>aluminum</i> <i>phosphide</i> products	[a_fumigant_cd2] ○ No ○ Yes <sup>0</sup> ○	[a_fumigant_yr2] 1 year or less 2–5 years 6–10 years 11–20 years More than 20 years	[a_fumigant_day2] () 1 day () 2-5 days () 5-9 days () 10-19 days () 20-39 days () 40-59 days () 60-150 days () More than 150 days	[a_fumigant_fu2] ○ Before 1960 ○ In the 1960s ○ In the 1970s ○ In the 1980s ○ In the 1990s ○ Mark here if you used this pesticide last year [a_fumigant_ls2]
b. <b>Carbon tetrachloride/</b> <b>carbon disulfide</b> (80/20 mix)	[a_fumigant_cd3] ○ No ○ Yes <sup>0</sup> ○	[a_fumigant_yr3] 1 year or less 2–5 years 6–10 years 11–20 years More than 20 years	[a_fumigant_day3] 0 1 day 0 2-5 days 0 5-9 days 0 10-19 days 0 20-39 days 0 40-59 days 0 60-150 days 0 More than 150 days	[a_fumigant_fu3] O Before 1960 O In the 1960s O In the 1970s O In the 1980s O In the 1990s
c. <b>EDB, E-D-Bee,</b> <b>Bromofume</b> or other <i>ethylene dibromide</i> products	[a_fumigant_cd4] ○ No ○ Yes <sup>0</sup> ○	[a_fumigant_yr4] 1 year or less 2–5 years 6–10 years 11–20 years More than 20 years	[a_fumigant_day4] () 1 day () 2-5 days () 5-9 days () 10-19 days () 20-39 days () 40-59 days () 60-150 days () More than 150 days	[a_fumigant_fu4] O Before 1960 O In the 1960s O In the 1970s O In the 1980s O In the 1990s

- 23. *In your lifetime*, other than those listed above, have you personally used any other pesticides *frequently* (either now or in past years)? [aothrpcd]
  - O No [GO TO QUESTION 25] O Yes [CONTINUE]

0

### 24. What other pesticides have you used frequently (either now or in the past)? (Mark all that you have used.)

A. C	rop Insecticides				
	Aastar (flucythrinate + phorate)	[aocins1]	Ο	Marlate (methoxychlor)	[aocins14]
Õ	Broot (trimethacarb)	[aocins2]	Ο	Monitor, Swipe, Tahmabon, Acephate-Me	
Ō	Cygon 400 (dimethoate)	[aocins3]		(methamidophos)	•
	Delnav (dioxathion)	[aocins4]	Ο	Mocap (ethoprop)	[aocins16]
Ō	Dipel (bacillus thuringiensis)	[aocins5]		Noxfish (rotenone)	[aocins17]
	Di-syston (disulfoton)	[aocins6]	Ō	Orthene (acephate)	[aocins18]
	Etrolene, Korlan, Ronnel (fenchlorphos)	[aocins7]	Ο	Phosdrin (mevinphos)	[aocins19]
Ō	Force (tefluthrin)	[aocins8]	Ο	Pydrin (fenvalerate)	[aocins20]
Ō	Guthion (azinphos methyl)	[aocins9]	Ο	Ruelene (crufomate)	[aocins21]
Ō	Imidan (phosmet)	[aocins10]	Ο	Thiodan (endosulfan)	[aocins22]
0	Kelthane (dicofol)	[aocins11]	Ο	Totalene, Tugon (trichlorfon)	[aocins23]
0	Lannate (methomyl)	[aocins12]	Ο	Vydate (oxanyl)	[aocins24]
0	Lead Arsenate	[aocins13]		• • • •	
пт.					
	vestock/Poultry Insecticides Baytex, Lysoff, Tiguvon (fenthion)	[aolins1]	0	Stimukil (methomyl)	[aolins7]
Ő	Black Leaf 40 (nicotine)			Neguvon, Tugon (trichlorfon)	[aolins8]
Ő	Bo-Ana, Warbex (famphur)	[aolins2] [aolins3]		Prolate (phosmet)	[aolins9]
Ő	Bux (bufencarb)	[aolins3] [aolins4]	Õ	Rabon, Gradona (tetrachlorvinphos)	[aolins10]
Ő	Ivomec	[aolins5]	õ	Rotenone (rotenoneapry)	[aolins10]
Ő	Korlan, Trolene (ronnel)	[aolins5] [aolins6]	Õ	Tackic	[aolins12]
_		[doiniso]	Ŭ	Tuckie	[40111012]
	erbicides		~		
-	Ally (metsulfuran methyl)	[aohrb1]	_	Hoelon (diclofop-methyl)	[aohrb18]
0	Amiben (chloramben)	[aohrb2]	0	Inorganic Arsenic	[aohrb19]
0	Basagran (bentazone)	[aohrb3]	0	Lorox (linuron)	[aohrb20]
0	Bicep (atrazine + metolachlor)	[aohrb4]	0	Marksman (dicamba + atrazine)	[aohrb21]
0	Blazer, Storm, Galaxy (acifluorfen		0	Paarlan (isopropalin)	[aohrb22]
$\cap$	sodium)	[aohrb5]	0	Princep (simazine)	[aohrb23]
0	Bronco (alachlor + isopropylamine		0	Organic Arsenic	[aohrb24]
$\cap$	salt of glyphosphate)	[aohrb6]	0	Poast (sethoxydim)	[aohrb25]
	Bullet (alachlor + atrazine)	[aohrb7]	0	Ramrod (propachlor)	[aohrb26]
-	Buctril (bromoxynil)	[aohrb8]	0	Scepter (imazaquin)	[aohrb27]
0	Canopy (metribuzin + chlorimuron ethyl)	[aohrb9]	0	Sonalan (ethalfluralin)	[aohrb28]
0	Command (clomazone)	[aohrb10]	0	Squadron (pendimethalin + imazaquin)	[aohrb29]
0	Conquest (cyanazine + atrazine)	[aohrb11]	0	Surflan (oryzalin)	[aohrb30]
0	Cotoran (fluometuron)	[aohrb12]	0	Sutazine (atrazine + butylate)	[aohrb31]
0	Devrinol (napropamide)	[aohrb13]	0	Tandem (tridiphene)	[aohrb32]
0	Enide (diphenamid)	[aohrb14]	0	Vernam (vernolate)	[aohrb33]
0	Eradicane, Eptam (EPTC)	[aohrb15]	0	Zorial (norflurozon)	[aohrb34]
0	Fusilade (fluazifop-butyl) Harmony, Pinnacle (thifensulfuron methyl)	[aohrb16]			
0	Harmony, Finnacie (uniensunuton meuryi)	[aohrb17]	0	Telone, Telone II, D-D (dichloropropene)	[aofumg6]
D. Fı	umigants		ŏ	Tetrafume	[aofumg7]
0	Basamid (dazomet)	[aofumg1]	Õ	Vapam (metam-sodium)	[aofumg8]
Õ	Bin Spray	[aofumg2]	Õ	Vorlex (methyl isothiocyanate)	[aofumg9]
Õ	Chlor-O-Pic, Dolochlor (chloropicrin)	[aofumg3]	~	······································	·3-1
Õ	Cyanamid, Cyanogas (calcium cyanide)	[aofumg4]			
Ō	DBCP (dibromochloropropane)	[aofumg5]			
		I			

E. Fı	ıngicides				
0	Arbotect (triabendazole)	[aofung1]	0	Nova, Rally, Systhane (myclobutanil)	[aofung16]
0	Banner, Tilt, 3.6 EC (propiconazole)	[aofung2]	Ο	Phaltan (folpet)	[aofung17]
0	Bayleton (triadimefon)	[aofung3]	0	Pipron (piperalin)	[aofung18]
0	Baytan 30 (triadimenol)	[aofung4]	Ο	Polyram, Carbatene (metiram)	[aofung19]
0	Haipen, Sanspor (captafol)	[aofung5]	0	Rovral (iprodione)	[aofung20]
0	Carbamate (ferbam)	[aofung6]	0	Rubigan (fenarimol)	[aofung21]
0	Copper-Count N (copper ammonia carbonate)	[aofung7]	0	Sulfur	[aofung22]
0	Curalan, Vorlan (vinclozolin)	[aofung8]	0	Terraclor (PCNB)	[aofung23]
0	Cyprex (dodine)	[aofung9]	Ο	Thiocarabamates	[aofung24]
0	Dyrene (anilazine)	[aofung10]	0	Topsin-M (triophanate-methyl)	[aofung25]
0	Evershield, Aatack (thiram)	[aofung11]	0	Tribasic (copper sulfate)	[aofung26]
0	Funginex (triforine)	[aofung12]	0	Triacetane (triphenyltin acetate)	[aofung27]
0	Kocide 101, Kocide 404 (cupric hydroxide)	[aofung13]	0	Truban (etridiazole)	[aofung28]
0	Mertect (thiabendazole)	[aofung14]	0	Vitavax (carboxin)	[aofung29]
0	Milban (dodemorph acetate)	[aofung15]			

25. Have you ever had an incident or experience while using any type of PESTICIDE which caused you unusually high personal exposure? [chghexpo]

#### O No [GO TO QUESTION 30] O Yes

### 26. What was the name of the product you were using during your highest exposure incident or experience?

(Pesticides listed in questions 10 to 24 may assist you in remembering or spelling, if needed.)

### 27. During which decade did this pesticide incident occur?

- O the 1990s
- O the 1980s
- O the 1970s
- O the 1960s
- O the 1950s
- O the 1940s

### **28.** Which part(s) of your body were exposed to the pesticide? (Mark all that apply.)

Ο	Head and/or face	[abodypt1]
Ο	Arms	[abodypt2]
Ο	Hands	[abodypt3]
Ο	Chest/back/abdomen	[abodypt4]
Ο	Groin area	[abodypt5]
Ο	Legs	[abodypt6]
Ο	Feet	[abodypt7]
Ο	Lungs and respiratory tract (from breathing fumes)	[abodypt8]
Ο	Digestive tract (from ingesting/swallowing)	[abodypt9]

### 29. How soon after this pesticide incident were you able to wash (with soap and water)

### your exposed body part(s)?

- O Less than 30 minutes
- O 30–59 minutes
- $\bigcirc$  1–3 hours
- $\bigcirc$  4–6 hours
- $\bigcirc$  7–9 hours O More than 9 hours after the incident

[awhnwash]

[aoccuryr]

### **III. Work Practices**

**30.** Were you applying pesticides 10 years ago?

O No [Complete Column A Only]

O Yes [Be sure to answer for *both* current work practices (Column A), and for 10 years ago (Column B).]

[aus10ago]

QUESTION	A. NOW (Past 12 Months)	B. 10 YEARS AGO
<b>31. What types of pesticides do you generally mix or apply </b> <i>using protective equipment?</i> (Mark all that apply.)	O Insecticides[anpeqps1]O Herbicides[anpeqps2]O Fungicides[anpeqps3]O Fumigants[anpeqps4]O None[anpeqps5]	O Herbicides[aapeqps2]O Fungicides[aapeqps3]O Fumigants[aapeqps4]
32. What types of protective equipment do you usually use when you personally handle pesticides? (Mark all that apply.)	<ul> <li>Never use protective equipment</li> <li>Cartridge respirator, gas mask</li> <li>Dust mask</li> <li>Full face shield</li> <li>Hat</li> <li>Goggles</li> <li>Chemically resistant gloves</li> <li>Fabric/leather gloves</li> <li>Apron</li> <li>Chemically resistant boots</li> <li>Cloth coveralls (complete suit)</li> <li>Disposable outer clothing (anpreq12)</li> <li>(like Tyvek®)</li> </ul>	<ul> <li>Cartridge respirator, gas mask [aapreq2]</li> <li>Dust mask [aapreq3]</li> <li>Full face shield [aapreq4]</li> <li>Hat [aapreq6]</li> <li>Goggles [aapreq6]</li> <li>Chemically resistant gloves [aapreq7] (like neoprene or nitrile gloves)</li> <li>Fabric/leather gloves [aapreq8]</li> <li>Apron [aapreq9]</li> <li>Chemically resistant boots [aapreq10]</li> <li>Cloth coveralls (complete suit) [aapreq11]</li> </ul>
<b>33.</b> After mixing or applying pesticides, when do you usually change into clean work clothes?	[anchclot] <ul> <li>Right away</li> <li>At lunch</li> <li>At the end of that work day</li> <li>At the end of the next work day</li> <li>Later in the week</li> <li>Always use disposable outer clothing</li> </ul>	[aachclot] <ul> <li>Right away</li> <li>At lunch</li> <li>At the end of that work day</li> <li>At the end of the next work day</li> <li>Later in the week</li> <li>Always use disposable outer clothing</li> </ul>
<b>34.</b> Do you usually wear regular (prescription) eye glasses or sunglasses while mixing or applying pesticides? (Does not include goggles.)	[anglass] O No O Yes	[aaglass] O No O Yes
<b>35.</b> If you spill a small amount of pesticide on your clothes early in the day, when would you usually change clothes?	[anspilch] <ul> <li>Right away</li> <li>Change at lunch</li> <li>At the end of that work day</li> <li>At the end of the next work day</li> <li>Later in the week</li> <li>Always use disposable outer clothing</li> </ul>	[aaspilch] <ul> <li>Right away</li> <li>Change at lunch</li> <li>At the end of that work day</li> <li>At the end of the next work day</li> <li>Later in the week</li> <li>Always use disposable outer clothing</li> </ul>
36. When mixing or applying pesticides, how long do you usually work with the same pair of gloves before exchanging them for a new set?	[anchglov] O Don't wear gloves Change each time Change at least once per month Change 1 to 4 times per season Generally don't change gloves until they are worn out	[aachglov] O Don't wear gloves Change each time Change at least once per month Change 1 to 4 times per season Generally don't change gloves until they are worn out

QUESTION	A. NOW (Past 12 Months)	B. 10 YEARS AGO
37. In your household, how are clothes usually washed after they have been worn when mixing or applying pesticides?	[anwshclo] O Always wear disposable clothing (like Tyvek®) O Mixed with family wash O Soaked separately then mixed with family wash O Washed separately in family machine O Sent out or washed in machine used only for this purpose	[aawshclo] O Always wear disposable clothing (like Tyvek®) O Mixed with family wash O Soaked separately then mixed with family wash O Washed separately in family machine O Sent out or washed in machine used only for this purpose
38. When mixing or applying pesticides, what parts of your body usually come in contact with the pesticide? (Mark all that apply.)	<ul> <li>No parts of my body</li> <li>Hands</li> <li>Arms</li> <li>Legs</li> <li>Face</li> <li>Body</li> <li>[antchbd5]</li> <li>[antchbd5]</li> </ul>	<ul> <li>Hands [aatchbd2]</li> <li>Arms [aatchbd3]</li> <li>Legs [aatchbd4]</li> <li>Face [aatchbd5]</li> </ul>
<b>39. If you finish mixing or applying pesticides in the morning, when do you usually wash yourself?</b> (Mark all that apply.)	<ul> <li>Hands/arms only right away</li> <li>Complete bath/shower right away</li> <li>Complete bath/shower at lunch [anwhnwa2]</li> <li>Complete bath/shower at lunch [anwhnwa3]</li> <li>Hands/arms only at end of day</li> <li>Complete bath/shower at end of day</li> <li>Other [anwhnwa6]</li> </ul>	<ul> <li>Complete bath/shower right away</li> <li>Complete bath/shower at lunch [aawhnwa3]</li> <li>Hands/arms only at end of day [aawhnwa4]</li> </ul>
40. After <i>mixing or applying</i> pesticides, where do you usually wash up or shower?	<ul> <li>[anwherwa]</li> <li>O Bathroom in home</li> <li>O Outside shower</li> <li>O Other area outside home</li> </ul>	<ul> <li>[aawherwa]</li> <li>O Bathroom in home</li> <li>O Outside shower</li> <li>O Other area outside home</li> </ul>
41. Do you use an enclosed system, such as lock and load, for mixing and transferring pesticide concentrates?	[anenclo O Yes O No O Don't know	[aaenclo] O Yes O No O Don't know
<b>42. How is the pesticide applying equipment generally washed at the end of the application?</b> (Mark all that apply.)	<ul> <li>Don't wash</li> <li>Clean nozzle</li> <li>Rinse tank</li> <li>Hose down sprayer</li> <li>Hose down tractor</li> <li>Don't know</li> <li>[anpeqwa6]</li> </ul>	<ul> <li>Clean nozzle [aapeqwa2]</li> <li>Rinse tank [aapeqwa3]</li> <li>Hose down sprayer [aapeqwa4]</li> <li>Hose down tractor [aapeqwa5]</li> </ul>
43. Does the tractor you usually use now for spraying pesticides have an enclosed cab?	<ul> <li>☐ Intraenc</li> <li>○ No</li> <li>○ Yes</li> <li>○ Don't use tractor</li> </ul>	
44. Does the primary tractor you use during pesticide application have a cab with a charcoal filter?		[aatrafil] O No O Yes O Primary tractor doesn't have cab
<b>45.</b> Are agricultural or commercial pesticides ever stored (even temporarily) in your home? (Mark all that apply.)	<ul> <li>Yes, in home [anstohm1]</li> <li>Yes, in basement [anstohm2]</li> <li>Yes, in garage [anstohm3]</li> <li>Yes, in attached outbuilding [anstohm4] or shed</li> <li>No [anstohm5]</li> </ul>	<ul> <li>Yes, in home [aastohm1]</li> <li>Yes, in basement [aastohm2]</li> <li>Yes, in garage [aastohm3]</li> <li>Yes, in attached outbuilding or shed [aastohm4]</li> </ul>
46. Do YOU usually repair your own spraying or mixing equipment?		

QUESTION	A. NOW (Past 12 Months)	B. 10 YEARS AGO
47. How far is your home from the nearest area where pesticides are <i>mixed</i> ?	[anpmxdis] O No pesticides mixed on farm O Less than 50 yards O 50–100 yards O More than 100 yards	[aapmxdis] O No pesticides mixed on farm O Less than 50 yards O 50–100 yards O More than 100 yards
<b>48.</b> How far is your home from the nearest field or orchard where pesticides are <i>applied</i> ?	[anpapdis] C Less than 100 yards O 100–199 yards O 200–299 yards O 300 yards or more	[aapapdis] O Less than 100 yards O 100–199 yards O 200–299 yards O 300 yards or more
<b>49.</b> How far is your <i>drinking water</i> <i>well</i> from the nearest area where pesticides are <i>mixed</i> ?	[anwtrdis] No pesticides mixed on farm Less 50 yards 51–100 yards More than 100 yards Don't have private well	[aawtrdis] <ul> <li>No pesticides mixed on farm</li> <li>Less 50 yards</li> <li>51–100 yards</li> <li>More than 100 yards</li> <li>Don't have private well</li> </ul>
50. During a typical day in the growing season, about how many hours per day do you spend lifting or carrying heavy objects (for example, hay bales, logs, fertilizer or feed bags)?	[ancarry] None Less than 1 hour 1–2 hours 3–5 hours 6–10 hours More than 10 hours	[aacarry] O None O Less than 1 hour O 1–2 hours O 3–5 hours O 6–10 hours O More than 10 hours

Now go back and make sure you have completed both columns A *and* B if you were using pesticides 10 years ago.

### **IV.** Occupational Information

- **51. Did you** *ever* have a job off a farm? O No [GO TO QUESTION 58]
- 52. For the non-farm job you held the longest, what was your job?

DO NOT WRITE OUTSIDE BOX

53. What industry was this job in? (For example:Building/home construction, trucking, grain milling, restaurant)

O Yes

DO NOT WRITE OUTSIDE BOX

54. For the non-farm job you held the longest, which of the following were you exposed to? (Mark all that apply)

O Pesticides	O Grain dust	O Engine exhaust [anfexp11]	O Mercury
[anfexp1]	[anfexp6]		[anfexp16]
O Solvents (other than gasoline)	O Wood dust	O Lead solder [anfexp12]	O Cadmium
[anfexp2]	[anfexp7]		[anfexp17]
O Gasoline	O Cotton dust	O Welding fumes	O Other metals
[anfexp3]	[anfexp8]	[anfexp13]	[anfexp18]
O Asbestos [anfexp4]	O Mineral or mining dust [anfexp9]	<ul> <li>O Electroplating fumes</li> <li>[anfexp14]</li> </ul>	<ul> <li>O Pneumatic drills (vibrations)</li> <li>[anfexp19]</li> </ul>
O X-ray radiation	O Silica/sand dust	O Lead	O None of these
[anfexp5]	[anfexp10]	[anfexp15]	[anfexp20]

### 55. How many years did you have this job?

- O 1 year or less
- $\bigcirc$  2–5 years
- O 6-10 years
- O 11–20 years
- O More than 20 years

### 56. When did you usually work at this job?

O Year round

O No

O Off season only

57. How much time did you work at this job?

- O Half-time or less
- O More than half-time

## 58. Did you mix or apply herbicides during military operations? (For example: Agent Orange, Agent White)[amxinmil]ONoOYesONever in the military

### 59. Are there other exposures not previously mentioned which you feel we should know about?

O Yes (*Please describe these in the space below.*)

DO NOT WRITE OUTSIDE BOX

[ajoboff]

[ajobyrs]

[awhnwork]

[awrktime]

[aothrexp]

## V. Activity and Physical Information

### 60. On average, how many hours per week do you spend doing strenuous exercise (heart beats rapidly) during your leisure time?

a. In the Summer	b. In the Winter
Hours per week	Hours per week
[asumexer]	[awinexer]
O None	O None
O Up to 1 hour	O Up to 1 hour
$\bigcirc$ 1–2 hours	$\bigcirc$ 1–2 hours
$\bigcirc$ 1–2 hours $\bigcirc$ 3–5 hours	$\bigcirc$ 1–2 hours $\bigcirc$ 3–5 hours
	$\bigcirc$ 5–5 hours $\bigcirc$ 6–10 hours
$\bigcirc$ 6–10 hours	
O More than 10 hours	O More than 10 hours
1. What color are your eyes? [aeyecolr	[] 62. What is/was the natural color of your hair? [ahaircol]
O Blue	O Brown
O Brown	O Black
O Green	O Red
O Hazel	O Blonde
O Gray	
O Other ( <i>Please specify</i> .)	
53. How tall are you?	64. How much do you weigh now?
[ahgtft] [ahgtin] Feet Inches	[aweight] Pounds
Feet Inches	Pounds
Write the number	ers in Write the numbers in
> the boxes	> the boxes
3 0 0	
	Then fill in the
(4)(1)(1)(1)(5)(2)(2)(3)(6)(3)(3)	nelow » matching ovals below
each box	(2) $(2)$ $(2)$ each box
_	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
$\overline{7}$ (4)	
5	$ \underbrace{ \begin{array}{c} \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\$
() () (8)	
$\overline{\bigcirc}$	(7) $(7)$

[asknreac]

(9) (9)

#### 65. How would your skin react the first time each year if you were exposed to strong sunlight for more than an hour?

O Get a severe sunburn with blisters

(9)

- Get a painful sunburn, but not blisters
- O Get a mild sunburn followed by some tanning
- O Become tanned without any sunburn
- O No visible reaction

#### 66. In the growing season when you work in the sun, what type(s) of sun protection do you usually use? (Mark all that apply.)

- O Sunscreen or sunblock [asunpro1] O Wear baseball-type cap [asunpro2]  $\bigcirc$  Wear other kind of hat with brim [asunpro3] O Almost always wear long-sleeved shirt [asunpro4]
- O Don't use any of the above protections [asunpro5]

### 67. In the growing season, how many hours a day do you generally spend in the sun?

a. Now	b. 10 years ago
[anhrsun]	[aahrsun]
O Up to 1 hour	$\bigcirc$ Up to 1 hour
$\bigcirc$ 1–2 hours	$\bigcirc$ 1–2 hours
$\bigcirc$ 3–5 hours	$\bigcirc$ 3–5 hours
$\bigcirc$ 6–10 hours	$\bigcirc$ 6–10 hours
O More than 10 hours	O More than 10 hours

### **VI. Dietary and Cooking Practices Information**

### 68. During the past year have you taken any vitamins or mineral supplements?

- O No [GO TO QUESTION 72]
- O Yes, but not regularly [GO TO QUESTION 72]

 $\bigcirc$  Yes, fairly regularly (at least once a week)

#### 69. If you've taken vitamins regularly, what vitamins? (Please mark each item.)

		A. Number of Tablets $^{\circ}$						B. I	For Ho	w Mar	y Yea	ars?	
Vitamin Type	None	1–3 Per Wk	4–6 Per Wk	1 Per Day	2 Per Day	3 Per Day	4 Per Day	5+ Per Day	Less Than 1 Yr	1–2 Yrs	3–5 Yrs	6–9 Yrs	10+ Yrs
Multiple Vitamins		0	0		0	0	0	0	0	0	0		0
<ul> <li>a. Stress-tabs type [anumvit1 / ayrsvit1]</li> <li>b. Therapeutic or Theragran [anumvit2 / ayrsvit2]</li> <li>type</li> </ul>		0 0	0	0	0	0	0	0	0	0	0	0	0
c. One-a-day type [anumvit3 / ayrsvit3]	0	0	0	0	0	0	0	0	0	0	0	0	0
Supplements													
d. Vitamin A [anumsup1 / ayrsupp1]	0	0	0	0	0	0	0	0	0	0	0	0	0
e. Vitamin E [anumsup2 / ayrsupp2]	0	0	0	0	0	0	0	0	0	0	0	0	0
f. B-carotene [anumsup3 / ayrsupp3]	0	0	0	0	0	0	0	0	0	0	0	0	0
g. Vitamin C [anumsup4 / ayrsupp4]	0	0	0	0	0	0	0	0	0	0	0	0	0
h. Calcium or Tums [anumsup5 / ayrsupp5]	0	0	0	0	0	0	0	0	0	0	0	0	0
i. Iron [anumsup6 / ayrsupp6]	0	0	0	0	0	0	0	0	0	0	0	0	0
j. Cod liver oil [anumsup7 / ayrsupp7]	0	0	0	0	0	0	0	0	0	0	0	0	0

70. If you took Vitamin C, how many milligrams per tablet did you take?

- O 250
- O 500
- $\bigcirc$  1000 or more
- O Don't know

### 71. If you took Vitamin E, how many units per tablet did you take?

- O 100
- O 200
- O 400
- $\bigcirc$  1000 or more
- O Don't know

[avitemgm]

[atakesup]

[avitcmgm]

O 100

### The next set of questions refer to your cooking and eating practices over the past year.

72. How often have you eaten the following meats during the past 12 months? Mark the column to show how often, on average, you ate the following foods during *the past year*. Be sure to include foods that were eaten away from home such as in restaurants, cafeterias, at friends' homes, or at work. If you rarely or never eat a food, mark "Never, or less than once a month."

	How Often Have You Eaten These Foods During The Last 12 Months?										
	Type of Food	Never, or Less than Once a Month	Once a Month	2–3 Times a Month	Once a Week	Twice a Week	3–4 Times a Week	5–6 Times a Week	Once a Day	Twice a Day or More	
a.	Hamburger, cheeseburger <b>[afoodty1]</b>	0	0	0	0	0	0	0	0	0	
b.	Beef-steaks [afoodty2]	0	0	0	0	0	0	0	0	0	
c.	Chicken [afoodty3]	0	0	0	0	0	0	0	0	0	
d.	Pork-chops or ham steak [afoodty4]	0	0	0	0	0	0	0	0	0	
e.	Bacon or breakfast sausage <b>[afoodty5]</b>	0	0	0	0	0	0	0	0	0	

73. When you eat steak, how is itusually cooked? (Mark only one or two.)

O Don't eat steak [astcook1]

O Pan fried [astcook2]

Oven broiled
 Other [astcook5]

[astcook4] O Don't know [astcook6] (5) (Please specify)

[asteaten]

O Grilled [astcook3]

74. When you eat steak, how do youusually eat it? (Mark only one.)

O Don't eat steakO Rare

- O Medium well
- Well doneVery well done
- Medium rareMedium
- O Don't know

### 75. When you eat hamburgers (or cheeseburgers), how are they usually cooked? (Mark only one or two.)

Ο	Don't eat hamburgers (or cheeseburgers) [aburgck1]	Ο	Oven broiled [aburgck4] O Don't know [aburgck6]	
Ο	Pan fried [aburgck2]	Ο	Other [aburgck5] (Please specify)	
Ο	Grilled [aburgck3]			

76.	When you eat hamburgers (or cheeseburg	ers),	how do youusually eat them? (Mark only one.)	[abureatn]
	O Don't eat hamburgers (or cheeseburgers)	Ο	Medium well	
	O Rare	Ο	Well done	
	O Medium rare	Ο	Very well done	
	O Medium	0	Don't know	
77.	When you eat chicken, how do youusually	eat it	? (Mark only one.)	[achkneat]
	O Don't eat chicken	Ο	Grilled	
	O Pan fried	Ο	Broiled	
	O Deep fried	Ο	Stewed or boiled	
	O Roasted or baked	0	Don't know	

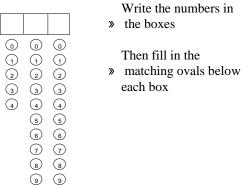
78.	When you eat pork chops	-	-	you <i>usually</i> ea	t them	? (Mark only one.)	[aporkeat]
	O Don't eat pork chops	0	Fried				
	O Baked	0	Broiled				
	O Grilled	0	Don't know	7			
79.	When you eat bacon or sa	0,	•	•	rk only	one.)	[abacneat]
	O Don't eat bacon or sausag	- -	Charred/bla				
	O Just until done	0	Don't know	V			
	O Well-done, crisp						
80.	How often do you eat mea	<b>t which has</b> O Rarely		orowned on the Sometimes	e outsic	<b>le by pan-frying or oven broiling?</b> Often	[afriedmt]
81.	When do you eat foods tha	at have beer O Mostly	0			fire or ceramic briquets)? GO TO QUESTION 84]	[agrillmt]
82.	How often do you eat gril	led or barb	cued meet	(including bee	f nork	chickon or fish)?	[agrilfrq]
02.	O Less than once a month	-	1–3 times a	. 0	1, por s	, entexen, or nsn).	[agrinid]
	$\bigcirc$ 1–3 times a month	-	4-5 times a				
	O Once a week	0	Almost eve				
	C Once a week	0	Annosteve	iy day			
83.	How often do you eat mea	t which has	been charr	ed/blackened	by grill	ing or barbecuing?	[acharmt]
	O Never	$\bigcirc$ Rarely	0	Sometimes	0	Often	[]
			-		-		

### **VII.** General Health Information

84.	Before age 18, did you live at least half you	ır life on a farm?	[alivfarm]
	O Yes	O No	

85. About how much did you weigh when you were age 20? (For female applicators, don't consider a time when you may have been pregnant.) [awgtat20]

### Pounds



86. During the past 12 months about how many times did you visit a medical doctor or medical assistant about a health concern?

O None

O Once

O More than once

[aseedoc]

## VIII. Medical History

Be sure to answer "No" or "Yes" for each item. If you answer "Yes," be sure to complete Column B.

Condition			А.	B. IF YES How old were you when the doctor first told you?						
		No	Yes		Younger than 20	20-39	40-59	60 or older		
a. Rheumatoid arthritis	[a_medcond49]	0	0 °	[a_agecond49]	0	0	0	0		
o. Stroke	[a_medcond53]	0	0 °	[a_agecond53]	0	0	0	0		
c. Myocardial infarction (heart attack)	[a_medcond39]	0	0 °	[a_agecond39]	0	0	0	0		
l. Arrhythmia (irregular heart beat)	[a_medcond4]	0	0 °	[a_agecond4]	0	0	0	0		
e. Angina (chest pain)	[a_medcond3]	0	0 °	[a_agecond3]	0	0	0	0		
f. High blood pressure requiring medication	[a_medcond26]	0	0 °	[a_agecond26]	0	0	0	0		
g. Diabetes (sugar) (other than while pregnant	[a_medcond16]	0	0 °	[a_agecond16]	0	0	0	0		
n. Asthma or reactive lung disease	[a_medcond6]	0	0 °	[a_agecond6]	0	0	0	0		
i. Farmer's lung disease	[a_medcond20]	0	0 °	[a_agecond20]	0	0	0	0		
. Chronic bronchitis	[a_medcond9]	0	0 °	[a_agecond9]	0	0	0	0		
x. Emphysema	[a_medcond18]	0	0 °	[a_agecond18]	0	0	0	0		
l. Hay fever	[a_medcond23]	0	0 °	[a_agecond23]	0	0	0	0		
n. Pneumonia (viral or bacterial)	[a_medcond47]	0	0 °	[a_agecond47]	0	0	0	0		
n. Cataracts	[a_medcond8]	0	0 °	[a_agecond8]	0	0	0	0		
o. Glaucoma	[a_medcond21]	0	0 °	[a_agecond21]	0	0	0	0		
b. Detached retina	[a_medcond15]	0	0 °	[a_agecond15]	0	0	0	0		
a. Retinal or macular degeneration	[a_medcond48]	0	0 °	[a_agecond48]	0	0	0	0		
. Goiter	[a_medcond22]	0	0 °	[a_agecond22]	0	0	0	0		
<ul> <li>Thyrotoxicosis/Grave's disease (exce thyroid hormone)</li> </ul>	ess [a_medcond54]	0	0 °	[a_agecond54]	0	0	0	0		
. Other thyroid disease	[a_medcond55]	0	0 °	[a_agecond55]	0	0	0	0		
<ol> <li>Kidney failure requiring dialysis or transplant</li> </ol>	[a_medcond30]	0	0 °	[a_agecond30]	0	0	0	0		
<ul> <li>Chronic kidney infections or pyelonephritis</li> </ul>	[a_medcond11]	0	0 °	[a_agecond11]	0	0	0	0		

	Condition			А.	B. IF YES How old were you when the doctor first told you?						
	Continuon		No	Yes		Younger than 20	20-39	40-59	60 or older		
w.	Kidney stones	[a_medcond31]	0	0 °	[a_agecond31]	0	0	0	0		
x.	Bright's disease, nephritis, or nephrosis	[a_medcond7]	0	0 °	[a_agecond7]	0	0	0	0		
y.	Other kidney disease	[a_medcond32]	0	0 °	[a_agecond32]	0	0	0	0		
z.	Shingles	[a_medcond51]	0	0 °	[a_agecond51]	0	0	0	0		
aa.	Eczema	[a_medcond17]	0	0 °	[a_agecond17]	0	0	0	0		
bb.	Mononucleosis or "mono"	[a_medcond37]	0	0 °	[a_agecond37]	0	0	0	0		
cc.	Scleroderma or sarcoidosis	[a_medcond50]	0	0 °	[a_agecond50]	0	0	0	0		
dd.	Lupus	[a_medcond35]	0	0 °	[a_agecond35]	0	0	0	0		
ee.	Ulcerative colitis or Crohn's disease	[a_medcond57]	0	0 °	[a_agecond57]	0	0	0	0		
ff.	Parkinson's disease	[a_medcond44]	0	0 °	[a_agecond44]	0	0	0	0		
gg.	Amyotrophic lateral sclerosis (A motor neuron disease, or Lou Gehrig's disease	LS), [a_medcond2]	0	0 °	[a_agecond2]	0	0	0	0		
hh.	Epilepsy or seizures (not related high fever)	to [a_medcond19]	0	0 °	[a_agecond19]	0	0	0	0		
ii.	Multiple sclerosis	[a_medcond38]	0	0 °	[a_agecond38]	0	0	0	0		
jj.	Depression requiring medication shock therapy	or [a_medcond14]	0	0 °	[a_agecond14]	0	0	0	0		
kk.	Pesticide poisoning	[a_medcond45]	0	0 °	[a_agecond45]	0	0	0	0		
11.	Solvent poisoning	[a_medcond52]	0	0 °	[a_agecond52]	0	0	0	0		
nm.	Lead poisoning	[a_medcond33]	0	0 °	[a_agecond33]	0	0	0	0		
nn.	Head injury requiring medical attention	[a_medcond24]	0	0 °	[a_agecond24]	0	0	0	0		
00.	Injury from farm machinery req medical treatment (excluding he injury)		0	0 °	[a_agecond28]	0	0	0	0		

Please be sure to answer Column A for each item. For any you answered "Yes" be sure to complete Columns B and C and D.

88.	During the <i>past 12</i> <i>months</i> , have you had?			А.	3	B. ° How many episodes have you had in the last 12 months?			We sympto after s	C. <sup>o</sup> re the oms worse smelling al odors?	D Were symp worse workin grains a	e the otoms after ng with	
			No	Yes	One	Two	3-6	7-12	More than 12	No	Yes	No	Yes
	Stuffy, itchy, or runny nose	[aallerg1]	0	0 °	0	0		O nalg1]	0	) lawa	O aftch1]	O [awaf	O hav1l
b.	Watery, itchy eyes	[aallerg2]	0	0 °	0	0	0	nalg2]	0	0	O aftch2]	O [awaf	0
c	A cold	[aallerg3]	0	0 °	0	0	0	0	0	0	0	0	0
	Sinusitis or sinus problems	[aallerg4]	0	0 °	0	0	0	nalg3] O nalg4]	0	0	aftch3] O aftch4]	[awaf O [awaf	0
e. 1	Flu	[aallerg5]	0	0 °	0	0	0	nalg5]	0	<u>[uirt</u>			
f. 1	Pneumonia	[aallerg6]	0	0 °	0	0	0	nalg6]	0				

89.	Have you ever taken the following types of aspirin or other pain medication (over-the-counter or prescription) for any reason <u>nearly every day for</u> <u>as long as a month</u> ?		<b>A</b> .	IF YES: altogethe pain med (not cou when y	er have licine <i>n</i>	w many you tak early ev onths or oed takir	en this ery day years	C. Do you currently take this medication daily (or nearly every day)?	
		No	Yes	Less than 1 year	1-4 years	5-9 years	10 or more years	No	Yes
a.	Aspirin or Buffered Aspirin (generic or any brand name, e.g. Anacin, Bayer, Bufferin, Midol) [amedic1]	0	0 °	0	O [amedo	O cyr1]	0	(ame	O dnow1]
b.	Advil, Nuprin, Motrin IB (ibuprofen) [amedic2]	0	0 °	0	(amedo	O Cyr2]	0	() [ame	O dnow2]
c.	Prescription anti-inflammatory drugslike Motrin,Feldene, Voltarin, Clinoril, or Indocin[amedic3]	0	0 °	0	) [amedo	O Cyr3]	0	) [ame	O dnow3]
d.	Tylenol or acetaminophen or other aspirin-free pain relievers (cold or sinus medicine, Anacin-3, Dristan AF, Comtrex, etc.) [amedic4]	0	0 °	0	O [amedo	O cyr4]	0	) [ame	O dnow4]
e.	BC, Goodys, Empirin, or ADC powders or tablets - BEFORE 1980 [amedic5]	0	0 °	0	O [amedo	O Cyr5]	0	() [ame	O dnow5]
f.	BC, Goodys, Empirin, or ADC powders or tablets - AFTER 1980 [amedic6]	0	0 °	0	O [amedo	0	0	) [ame	O dnow6]
g.	Excedrin or Vanquish [amedic7]	0	0 °	0	O [amedo	0 cyr7]	0	) [ame	O dnow7]

90.	Approximately how often during the last 12 mor you experienced the following?	nths have	Never	One a year	Once a month	Once a week	More than once a week
a.	Dizziness	[aphyco1]	0	0	0	0	0
b.	Feeling tense, anxious, or nervous	[aphyco2]	0	0	0	0	0
c.	Nausea/vomiting	[aphyco3]	0	0	0	0	0
d.	Feeling tired, sleepy, or low energy most of the day	[aphyco4]	0	0	0	0	0
e.	Sweating a lot more than usual	[aphyco5]	0	0	0	0	0
f.	Difficulty seeing at night	[aphyco6]	0	0	0	0	0
g.	Being absentminded, forgetful, or confused	[aphyco7]	0	0	0	0	0
h.	Headache	[aphyco8]	0	0	0	0	0
i.	Loss of appetite	[aphyco9]	0	0	0	0	0
j.	Fast heart rate	[aphyco10]	0	0	0	0	0
k.	Difficulty with balance	[aphyco11]	0	0	0	0	0
1.	Blurred vision or double vision	[aphyco12]	0	0	0	0	0
m.	Difficulty concentrating	[aphyco13]	0	0	0	0	0
n.	Numbness or pins-and-needles in your hands or feet	[aphyco14]	0	0	0	0	0
0.	Momentary loss of consciousness	[aphyco15]	0	0	0	0	0
p.	Feeling excessively irritable or angry	[aphyco16]	0	0	0	0	0
q.	Shaking or trembling of your hands	[aphyco17]	0	0	0	0	0
r.	Difficulty falling asleep or staying asleep	[aphyco18]	0	0	0	0	0
s.	Difficulty speaking	[aphyco19]	0	0	0	0	0
t.	Weakness in your arms or legs	[aphyco20]	0	0	0	0	0
u.	Changes in your sense of smell or taste	[aphyco21]	0	0	0	0	0
v.	Feeling depressed, indifferent, or withdrawn	[aphyco22]	0	0	0	0	0
w.	Twitches, jerks, or involuntary movements of your arms or legs	s [aphyco23]	0	0	0	0	0

- 91. Do any of these symptoms seem to get worse after smelling chemical odors like those from paint, perfume, exhaust or new cars? [awafcodr]
  - O No O Yes
- 92. Do you have shortness of breath when hurrying on level ground or walking up a slight hill?
   [ashrtbrt]

   O
   No
   O
   Yes
- **93.** How many episodes of wheezing or whistling in your chest have you had in the *past 12 months*? [awheezin] O No wheezing or whistling
  - $\bigcirc$  1–2 episodes
  - $\bigcirc$  1–2 episodes  $\bigcirc$  3–6 episodes
  - $\bigcirc$  3-6 episodes  $\bigcirc$  7-12 episodes
  - O More than 12 episodes
- 94. During the *past 12 months*, how many times have you gone to the hospital emergency room or doctor's office for an episode of wheezing or whistling? [anumwhez]
  - O None
  - O 1–2 visits
  - O 3–6 visits
  - O 7–12 visits
  - O More than 12 visits

### 95. During which months of the year are your breathing problems most severe? (Please mark all that apply)

	ONo breathing problems[abrpro1]OAll months[abrpro2]OJan[abrpro3]OOFeb[abrpro4]OOMar[abrpro5]OSeptOApr[abrpro6]OOctOMay[abrpro8]ODec	[abrpro9] [abrpro10] [abrpro11] [abrpro12] [abrpro13] [abrpro14]	
96.	Has a doctor ever told you that you are legal O No [GO TO QUESTION 98]		[ablind]
97.	<ul> <li>How old were you when a doctor first told yo</li> <li>Younger than 20 years old</li> <li>20 to 39 years old</li> <li>40 to 59 years old</li> <li>60 years old or older</li> </ul>	ou that you were legally blind in either eye?	[ablindag]
98.	<b>Do you use glasses or contact lenses to correc</b> O No [GO TO QUESTION 100]	et nearsightedness (to help you see far away)? ) Yes	[ashrtsgh]
99.	<ul> <li>How old were you when you began wearing</li> <li>Younger than 20 years old</li> <li>20 to 39 years old</li> <li>40 to 59 years old</li> </ul>	glasses or contact lenses for nearsightedness?	[assghtag]

O 60 years old or older

### **100.** Do you use glasses or contact lenses to correct farsightedness (to help you see close up)? O No [GO TO QUESTION 102] O Yes

### 101. How old were you when you began wearing glasses or contact lenses for farsightedness?

- O Younger than 20 years old
- O 20 to 39 years old
- O 40 to 69 years old
- O 70 years old and older
- 102. Please answer the following question, whether or not you wear glasses or contact lenses.

<i>Without</i> wearing glasses or contact lenses, can you see well enough to	No	Yes
a. Recognize a friend from across the street? [aseewel1]	0	0
b. Recognize a friend from across a room? [aseewel2]	0	0
c. Recognize a friend who is at arm's length away? [aseewel3]	0	0
d. Read ordinary newspaper print? [aseewel4]	0	0
e. Read large print such as newspaper headlines?[aseewel5]	0	0

### 103. What is your sex?

### O Male [COMPLETE PAGE 31]

[agender]

O Female O

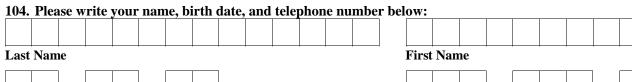
[PLEASE COMPLETE PAGE 31,

THEN GO TO FEMALE AND FAMILY HEALTH SECTION]

[afarsght]

[afsghtag]

For confidentiality, this page will be stored separately from your responses to this survey.



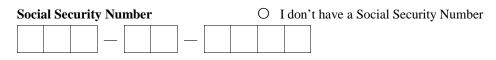




O Jr Sr

MI

105. Please write your Social Security number in the space below. The primary use of this information is for researchers to locate you in the future if they are unable to locate you at your home address, and to search health and vital records in follow-up studies in the future. Furnishing your Social Security Number is voluntary and you will not be denied any Federal right, benefit or privilege by your refusal to disclose it.



106. Sometimes people move to new locations. It would be helpful if you would provide us with the name and address of someone who doesn't live with you and could give us your new address should you decide to move. We would contact this person only if we are unable to reach you at your home address.

Last Name							First Name						MI 8 3
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### Thank You For Taking The Time To Complete This Questionnaire.

### PLEASE RETURN YOUR COMPLETED FORM IN THE POSTAGE-PAID ENVELOPE PROVIDED WITH THIS BOOKLET.